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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/520,246

**Applicant(s)**

MOSSAKOWSKI, GERD

**Examiner**

MANAV SETH

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The amendment received on January 28, 2008 has been entered in full.
2. Applicant's arguments with respect to the claims has been entered and based on the arguments claim rejections under 35 USC 112 1<sup>st</sup> paragraph on claims 3-9 have been withdrawn.
3. Applicant's amendment to the specification has been entered and based on the amendment objection on the specification has been withdrawn.
4. Applicant's arguments with respect to rejected claims as presented in the amendment filed have been fully considered but are moot in view of the rejections made below.

### *Claim Objections*

5. Claim 2 is objected to because of the following informalities:

Claim 2 recites "wherein the additional information has a position value of height  $h$  x width  $b$  of the image array +  $k$ ). Variable  $k$  in the claim is not defined, or in other words, there is no description in the claim for variable  $k$  which indicates what  $k$  stands for? Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Newly added claims 10-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 10 recites “arranging the additional information at position values of the image array that are not assigned to the pixel groups and compressing the image array containing both the image data of the pixel groups and additional information” and there is no support for this subject matter in the written description/ specification. As per the specification, specification describes “the maximum value of the array position is derived from the height  $h$  x width  $b$  of the array. Position values located outside the array can be used to transmit additional information” (paragraph 0024). Clearly from the portion of the specification cited, the additional information is located outside of the image array. However, claim 10 claims additional information being a part of image array and there is no support for this subject matter in the specification.

### ***Response to Arguments***

8. Applicant's arguments regarding the prior art rejections under Christopoulos on pages 9-10 of the Amendment filed on January 28, 2008 have been fully considered but are not persuasive. In the arguments, applicant argues that Christopoulos transmits a datstream containing two separate components, namely the image data and the metadata, only data of an (expanded) image array are transmitted with the method of the present invention, as recited in claim 1. Examiner respectfully disagrees. As per the specification, specification describes “the maximum value of the array position

is derived from the height  $h$  x width  $b$  of the array. Position values located outside the array can be used to transmit additional information” (paragraph 0024). Clearly from the portion of the specification cited, the additional information is located outside of the image array and the same is claimed in claim 1. Applicant's arguments clearly contradict the claimed subject matter. All the claims have been appropriately rejected in view of the subject matter as recited in the claims and therefore office still maintains the rejection on the claim 1.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 5 and 7-9 rejected under 35 U.S.C. 102(e) as being anticipated by Christopoulos *et al.*, US 6,961,754 B2.

Regarding Claim 1, Christopoulos *et al.* discloses a method for transmitting additional information when using a method for compressing data by way of a prioritizing pixel transmission wherein the compressed data comprise individual pixel groups, with each pixel group having a position value within an image array and at least one pixel value (figures 5, 6 and 7 and the subject matter related to these figures; col. 11, lines 22 through col. 12, lines 67 – compressed data being the ROIs (pixel groups), where each ROI is a part of an image, and inherently image is made up of pixels and each pixel has a value; column 12, line 59 - “The image is then compressed, for example,

using the JPE2000 standard, as shown in step 603”; col. 11, line 36 -“In accordance with exemplary embodiments of the present invention, an IAS may now be employed to prioritize and/or limit the number of ROIs that were selected by  $U_A$ , col. 11, line22 -“FIG. 5 illustrates the steps associated with a first scenario, where a media object (e.g., a still image) is transferred directly from  $U_A$  to  $U_B$ , along with a number of ROIs from the image which  $U_A$  has selected”), defining a minimal size of the image array by a height  $h$  and a width  $b$  of an image, expressed in pixels (as cited before, ROI is a part of an image or a still image (image array) where image in this reference apparently has at least a height of 1 pixel and a width of 1 pixel), and transmitting the data and the additional information, wherein the additional information is placed at position values that do not occur in the data and is located instead outside an area of the image array (col. 12, lines 59-67 – the image is compressed and the compressed data, along with the significance value associated with each of the selected ROIs, and the information and/or data that defines the capabilities of terminal B are multiplexed into a bitstream, “The block labeled "CONTENT DESCRIPTIONS" represents the descriptions, i.e., meta-data associated with the various media objects stored in the content storage block. The content descriptions block might contain, for example, MPEG-7 descriptions or JPEG2000 descriptions,” column 8, line 25 – clearly the compressed image data does not include the additional information such as significance values and terminal B capabilities and therefore these additional information do not occur in the data and is located instead outside an area of the image array).

Regarding Claim 5, Christopoulos *et al.* discloses a method according to claim 1, wherein the additional information is identified as being associated with a certain document format (“The block labeled "CONTENT DESCRIPTIONS" represents one or more databases that contain descriptive information about the stored multimedia objects, such as MPEG descriptions associated with the video objects, or JPEG descriptions associated with the still image objects,” column 7, line 51).

Regarding Claim 7, Christopoulos *et al.* discloses a method according to claim 1, wherein priorities are assigned to the additional information depending on its content-related relevance, its temporal relevance or its device-dependent relevance (“In step 611, the transcoder extracts from the bitstream the location of and corresponding significance value of each ROI. The transcoder may, at this point, employ an IAS to prioritize and/or limit the image data based on the previously defined user preference information (e.g., the significance value information associated with each ROI), as well as any user preference information associated with  $U_b$ , and capability information associated with terminal B,” column 13, line 3).

Regarding Claim 8, Christopoulos *et al.* discloses a method according to claim 1, wherein the additional information is transmitted in descending order of its priority (“The transcoder may, at this point, employ an IAS to prioritize and/or limit the image data based on the previously defined user preference information (e.g., the significance value information associated with each ROI), as well as any user preference information associated with  $U_b$ ,” column 13, line 5).

Regarding Claim 9, Christopoulos *et al.* discloses a method according to claim 1, wherein the additional information is recognized in the receiver based on its specific position values (“In accordance with step 612, the transcoder may then employ a TSS, which relies on the user preference information and the terminal and/or network capability information associated with terminal B to transcode the image data. As one skilled in the art will understand, the transcoding process may proceed in accordance with the JPEG2000 standard, where, for example, the transcoder derives a set of ROI coefficients (i.e., an ROI mask),” column 13, line 15. Also see “At

terminal B, the image data is received, as indicated by step 620. Terminal B then decodes the image data in accordance with the JPEG2000 standard, or other applicable decompression method, and the decoded image is displayed for  $U_B$ , as shown in steps 621 and 622, respectively,” column 13, line 32).

11. Claims 1, 2 and 7 are rejected under 35 U.S.C. 102(c) as being anticipated by Shiimoto *et al.*, US Patent Publication No. 2002/0053049 A1.

Regarding Claim 1, Shiimoto discloses a method for transmitting additional information when using a method for compressing data by way of a prioritizing pixel transmission wherein the compressed data comprise individual pixel groups, with each pixel group having a position value within an image array and at least one pixel value (paragraph 0037-0038 – dividing image into image data packets (pixel groups, inherently image is made up of pixels and each pixel has a value), defining a minimal size of the image array by a height  $h$  and a width  $b$  of an image, expressed in pixels and transmitting the data and the additional information, wherein the additional information is placed at position values that do not occur in the data and is located instead outside an area of the image array (figure 5A-5D - provides additional information area  $H_a$  with the image data area where image in this reference apparently has at least a height of 1 pixel and a width of 1 pixel; paragraph 0039- “The image data  $s1A$  thus compressed and coded is given a header portion  $H_a$  for every data unit (e.g., one picture), as shown in figure 5A and is transmitted to the multiplexing section 33, as coded data  $S2A$ ; paragraphs 0041, 0045 and 0069).

Regarding claim 2, Shiimoto discloses, where the additional information has a position of height  $x$  width  $b$  of the image array +  $k$  (figure 5A  $H_a$  is in additional position  $k$  of the image data).



Regarding claim 7, Shiomoto discloses wherein the priorities are assigned to the additional information depending on its content-related relevance, its temporal relevance or its device – dependent relevance (paragraphs 0069 and 0081).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 3 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Christopoulos *et al.* as applied to claim 1 above, and further in view of Xie *et al.* (“Feature representation and compression for content-based retrieval,” H. Xie and A. Ortega, Proc. Vol. SPIE 4310, pages 111-122 (2000)).

Regarding Claim 3, Christopoulos *et al.* discloses data transmission with prioritized image components with additional information in metadata format.

Christopoulos *et al.* does not explicitly specify image textures as transmitted additional information. Xie *et al.* teaches a method wherein the additional information is transmitted in the form of textures. (“various feature sets (color, texture, shape, motion, etc.) are extracted to represent the content information of images/videos and stored as metadata in some content-based retrieval systems,” page 112, second paragraph).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply Xie *et al.* method of incorporating image texture information in metadata to Christopoulos *et al.* method of transmitting images encoded with metadata prioritization information for the purpose of allowing different kinds of queries and faster and more efficient as well as more relevant information retrieval,

Regarding Claim 4, Christopoulos *et al.* discloses data transmission with prioritized image components with additional information in metadata format.

Christopoulos *et al.* does not explicitly specify transmitting the metadata information in compressed form. Xie *et al.* teaches a method according to claim 1 wherein the additional information is provided and transmitted in compressed form (“Wavelet based texture classification is performed with JPEG and SPIHT compressed images as well as with explicitly stored features (in compressed format),” page 118, section 4.1).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply Xie *et al.* method of transmitting compressed metadata to Christopoulos *et al.* method of transmitting images encoded with metadata prioritization information for the purpose of supplying main features and information of the image while avoiding excessive overhead data and allowing reduced transmission bandwidth as well as reduced storage requirements.

14. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiomoto *et al.*, US Patent Publication No. 2002/0053049 A1 as applied to claim 1 above, and further in view of Kobayashi *et al.*, U.S. Patent No. 6,493,692 B1.

Regarding claim 6, Shiomoto as discussed in the rejection of claim 1, discloses adding additional information in the header regarding the image related content but Shiomoto does not teach that header can be used to contain the properties of the texture and optionally one or more of fields of document format of the texture, position of the texture in the image/video array, size of the texture in the array, number of bytes required for transmission, part of the total texture, if the total texture must be subdivided into several parts due to its size and additional fields for additional use. However, Kobayashi teaches that header has multiple fields and these fields can be used to carry additional information about the image such as properties of texture including color, width, resolution of the image (col. 9, lines 25-37 and col. 17, lines 34-47). It would have been obvious at the time the invention was made to one of ordinary skill in the art to use the teachings of Kobayashi of using additional fields of header to transmit additional data such as texture of the image in the invention of Shiomoto for the purpose of efficient decoding and reconstruction of transmitted data.

Claim 3 has been similarly analyzed and rejected as per claim 6.

**Examiner note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teaching for the art and are applied to the specific limitations within the individual claim, other passages and figures may applied as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potential teaching all or part of the claimed invention, as well as the context of the a passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manav Seth whose telephone number is (571) 272-7456. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu, can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Manav Seth/  
Examiner, Art Unit 2624  
June 26, 2008

/Jingge Wu/  
Supervisory Patent Examiner, Art Unit 2624